

3. Claims 1, 6, 17, and 18 have been rejected under the second paragraph of 35 U.S.C. 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

(A) As per claim 1, claim 1 was deemed to be indefinite in step (e) in the phrase "processing said isolated reacted form of plant ash" for the reason that it is not known what steps are to be included in processing the composition. As a result, Applicant has amended claim 1 to provide the steps that are included in processing the composition. Said steps were disclosed in claim 7 of the application. No new matter was added.

(B) As per claim 6, claim 6 was deemed to be indefinite in the phase "further includes heating, dilution, filtration, concentration, crystallization, and evaporation", as it was not know whether all of the steps are required or just some of them. As a result, Applicant has amended claim 6 to particularly point out and distinctly claim that all of the steps were required. No new matter was added.

(C) As per claim 17, claim 17 was deemed to be indefinite in the use of the phrase "wherein said suspension form further includes an aqueous suspension", as it is not know whether the composition is an aqueous suspension or a colloidal suspension, or additionally includes an aqueous suspension or a colloidal suspension. As a result, Applicant has amended claim 17 to particularly point out and distinctly claim that the suspension form is an aqueous suspension. No new matter was added.

(D) As per claim 18, claim 18 was deemed to be indefinite in the use of the phrase "includes a colloidal suspension", as it is not know whether the composition is an aqueous suspension or a colloidal suspension, or additionally includes an aqueous suspension or a colloidal suspension. As a result, Applicant has amended claim 18 to particularly point out and distinctly claim that the suspension form is a colloidal suspension. No new matter was added.

***Regarding the Claim Rejections under 35 U.S.C. 103***

4. Applicant acknowledges the quotation of the appropriate paragraph of 35 U.S.C. 103 that forms the basis for the rejections under this section made in the office action.

5. Claims 1-18 were rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto (JP 59022583). Applicant respectfully disagrees with this obviousness rejection in light of the arguments presented below.

(A) As per claim 1, claim 1 discloses a method for preparing a consumable nutritional mineral supplement composition by providing plant material, burning the plant material down to ash form, reacting the ash form with organic acids, isolating the reacted form, and then processing the isolated reacted form to make a consumable nutritional mineral supplement composition. Miyamoto discloses a process of making a nutritional composition by burning tree material to make ash and then treating the ash with acetic acid to make a stock solution which is then evaporated. However, Miyamoto does not disclose the amended steps, as disclosed in Applicant's invention, of isolating the reacted form of the plant ash and processing the isolated reacted form of the plant ash for the purpose of making a consumable nutritional mineral supplement composition. Also, the Applicant's claimed method produces a different composition than the composition produced by Miyamoto's claimed method. Thus, Applicant's method is not obvious in light of Miyamoto's method because there is no teaching or suggestion in Miyamoto to isolate and process the reacted form of plant ash to make a consumable nutritional mineral supplement composition.

Additionally, although Miyamoto discloses that fruits and vegetables can be dipped into the mineral composition, this possibility does not render it obvious to claim a method for preparing a consumable nutritional mineral supplement composition as claimed by Applicant. Miyamoto does not teach or suggest using plant ash for a nutritional mineral supplement composition. Miyamoto discloses a method for preserving the freshness of a fruit or vegetable by dipping the fruit or vegetable into an aqueous solution containing a specific mineral for a time

period ranging from 30 seconds to 30 minutes, or the solution can be sprayed on. To obtain the dipping solution, one part of tree ash is reacted with 6-7 parts of the acid. The resulting stock solution, or solid derived therefrom, is diluted in 500 times the amount of water and neutralized with an alkali. Since 6-7 times the amount of acid is used to dissolve the ash, a substantial amount of alkali will be added to the extract. Since Miyamoto does not specify the nature of the alkali to be used, it is not obvious that the extract can be used as a mineral supplement for human consumption.

For example, if the alkali were sodium hydroxide or sodium carbonate, the resulting solution would be rich in sodium and would not be beneficial for people having to limit their sodium intake. Even if instead of sodium another element from the group of alkali metals or alkaline earth elements were to be used for neutralization, this would alter the composition of the original plant ash extract. Applicant's invention on the other hand, is directed to a nutritional mineral supplement composition that is specifically processed for safe and satisfactory consumption by humans and animals. Thus, Applicant's invention is not obvious in light of Miyamoto because Miyamoto focuses on a method for making a composition used to help prevent wilting and loss of freshness in fruits and vegetables rather than teaching or suggesting a method for preparing a nutritional mineral supplement composition that can be safely and satisfactorily consumed by humans and animals.

Further, the act of dipping a fruit or vegetable into Miyamoto's neutralized plant ash solution to prevent wilting does not necessarily mean that substantial amounts of minerals are actually absorbed by the produce. Without facts or evidence disclosed in Miyamoto to sufficiently indicate that the minerals in Miyamoto's composition are absorbed by the fruits or vegetables, it is not obvious that the composition is consumable by humans and animals. In a similar light, there is no teaching or suggestion in Miyamoto that indicates that the composition created from Miyamoto's method is consumable apart from the determination that that the fruits or vegetables that are dipped into the composition are consumable. It does not necessarily follow that because the fruits or vegetables may be consumable after coming into contact with the

composition created from the method as claimed in Miyamoto, that the composition was consumable prior to contact with the fruits or vegetables. Therefore, it follows that the step of dipping a fruit or vegetable into the Miyamoto composition must be included as a step in the method of making the Miyamoto composition consumable. Thus, Applicant's invention would only be obvious in light of Miyamoto if Applicant claimed a method for making a consumable nutritional mineral composition that included an obvious variant of the step of dipping a fruit or vegetable into an organic acid treated plant ash composition. However, because Applicant's method includes the steps of isolating and processing the reacted form of plant ash, and the step of Miyamoto of dipping a fruit or vegetable into the composition cannot be considered similar to or the equivalent of isolating and processing the reacted plant ash composition of Applicant's invention, it would not have been obvious in light of Miyamoto to provide a method for preparing a consumable nutritional mineral supplement composition as claimed by Applicant.

Therefore, because Miyamoto neither teaches nor suggests a method for preparing a consumable nutritional mineral supplement composition that includes the steps of isolating and processing of the reacted form of plant ash to make a consumable nutritional mineral supplement composition, and there are no facts or evidence disclosed in Miyamoto to suggest that the minerals in Miyamoto's composition are absorbed by the fruits or vegetables or consumable apart from coming into contact with the fruits or vegetables, it would not have been obvious to one with ordinary skill in the art to provide a method as claimed by Applicant. Thus, Applicant believes that claim 1, as amended, is now in condition for allowance.

(B) As per claim 2, Applicant respectfully disagrees with Examiner's rejection of claim 2 as being obvious. The composition of the ash from plants is dependent on the genus of the plant, the composition of the soil, and external sources of contamination. Accordingly, ash of the same plant from a given location may be substantially superior in composition or may contain greater contamination caused by external sources, from that of another site. Thus, it is not obvious that uncontaminated plant material as claimed by Applicant be used for a consumable nutritional mineral supplement composition.

Further, as claim 2 is dependent on claim 1, given the amendment adding steps neither disclosed in nor suggested in Miyamoto to claim 1, Applicant believes that claim 2 is now in condition for allowance.

(C) As per claim 3, claim 3 is dependent on claim 1. Given the amendment adding steps neither disclosed in nor suggested in Miyamoto to claim 1, Applicant believes that claim 3 is now in condition for allowance.

(D) As per claim 4, Applicant respectfully disagrees with Examiner's rejection of claim 4 as being obvious. A variety of inorganic acids can be used, not all of which would be suitable for a nutritional mineral supplement composition. Some acids may react synergistically with the mineral elements or other acids present. Other acids or their anions are themselves nutritionally essential or have specific properties of their own. Not all inorganic acids can be used as some may cause precipitates of insoluble salts to be formed or react with organic acids already present. Therefore, it is not obvious to use an inorganic acid in place of an organic acid to form a nutritional mineral supplement composition.

Further, as claim 4 is dependent on claim 1, given the amendment adding steps neither disclosed in nor suggested in Miyamoto to claim 1, Applicant believes that claim 4 is now in condition for allowance.

(E) As per claim 5, Applicant respectfully disagrees with Examiner's rejection of claim 5 as being obvious. A variety of inorganic acids can be used, not all of which would be suitable for a nutritional mineral supplement composition. Some acids may react synergistically with the mineral elements or other acids present. Other acids or their anions are themselves nutritionally essential or have specific properties of their own. Not all inorganic acids can be used as some may cause precipitates of insoluble salts to be formed or react with organic acids already present. Therefore, it is not obvious to mix an inorganic acid with an organic acid to form a nutritional mineral supplement composition.

Further, as claim 5 is dependent on claim 1, given the amendment adding steps neither disclosed in nor suggested in Miyamoto to claim 1, Applicant believes that claim 5 is now in condition for allowance.

(F) As per claim 6, Applicant respectfully disagrees with the Examiner's conclusion that because some of the process steps claimed by Applicant were disclosed in Miyamoto it would have been obvious to claim a method for preparing a consumable nutritional mineral supplement composition as claimed by Applicant in claim 6. Applicant's method includes several processing steps including heating, dilution, filtration, concentration, crystallization, and evaporation. Miyamoto neither suggests nor teaches the use of all of these steps to produce a consumable nutritional mineral supplement composition. Therefore, in the absence of any suggestion or teaching in Miyamoto of all of the steps as claimed by Applicant, Applicant believes that claim 6 is not obvious in light of Miyamoto.

Further, as claim 6 is dependent on claim 1, given the amendment adding steps neither disclosed in nor suggested in Miyamoto to claim 1, Applicant believes that claim 2 is now in condition for allowance.

(G) As per claim 7, claim 7 was cancelled.

(H) As per claim 8, Applicant respectfully disagrees with the Examiner's conclusion that Applicant's invention is obvious in light of Miyamoto. Miyamoto's composition is produced from a process, as claimed in claim 1, that includes the steps of burning plant material into ash, adding an organic acid, and evaporating the solution. Applicant's composition is prepared from a process that includes providing plant material, burning the plant material into ash form, reacting the ash form with organic acids, isolating the reacted plant ash, and processing the isolated reacted plant ash into a solid powdered form. These additional steps were neither disclosed nor suggested in Miyamoto for the purpose of producing a consumable nutritional mineral supplement composition (see subparagraph A of this response). Therefore, Applicant believes that claim 8 is in condition for allowance as it is not obvious in light of Miyamoto.

(I) As per claim 9, Applicant respectfully disagrees with the Examiner's conclusion that Applicant's invention is obvious in light of Miyamoto. Applicant's composition is produced from a process, as claimed in claim 1, that includes additional steps that were neither disclosed nor suggested in Miyamoto for the purpose of producing a consumable nutritional mineral supplement composition. Because Applicant's composition is not obvious in light of Miyamoto, it would not be obvious to compress the powdered form of Applicant's composition into pill tablets for oral consumption by humans and animals. Therefore, Applicant believes that claim 9 is in condition for allowance as it is not obvious in light of Miyamoto.

(J) As per claim 10, Applicant respectfully disagrees with the Examiner's conclusion that Applicant's invention is obvious in light of Miyamoto. Applicant's composition is produced from a process, as claimed in claim 1, that includes additional steps that were neither disclosed nor suggested in Miyamoto for the purpose of producing a consumable nutritional mineral supplement composition. Because Applicant's composition is not obvious in light of Miyamoto, it would not be obvious to encapsulate the powdered form of Applicant's composition into gelatin capsule tablets for oral consumption by humans and animals. Therefore, Applicant believes that claim 10 is in condition for allowance as it is not obvious in light of Miyamoto.

(K) As per claim 11, Applicant respectfully disagrees with the Examiner's conclusion that Applicant's invention is obvious in light of Miyamoto. Applicant's composition is produced from a process, as claimed in claim 1, that includes additional steps that were neither disclosed nor suggested in Miyamoto for the purpose of producing a consumable nutritional mineral supplement composition. Because Applicant's composition is not obvious in light of Miyamoto, it would not be obvious to add the powdered form of Applicant's composition directly to animal feeds for oral consumption by animals. Therefore, Applicant believes that claim 11 is in condition for allowance as it is not obvious in light of Miyamoto.

(L) As per claim 12, Applicant respectfully disagrees with the Examiner's conclusion that Applicant's invention is obvious in light of Miyamoto. Applicant's composition is produced from a process, as claimed in claim 1, that includes additional steps that were neither disclosed nor suggested in Miyamoto for the purpose of producing a consumable nutritional mineral supplement composition. Because Applicant's composition is not obvious in light of Miyamoto, it would not be obvious to mix the powdered form of Applicant's composition with vitamins, nutraceuticals, and/or herbs for the purpose of formulating a multi-vitamin/multi-mineral supplement. Therefore, Applicant believes that claim 12 is in condition for allowance as it is not obvious in light of Miyamoto.

(M) As per claim 13, Applicant respectfully disagrees with the Examiner's conclusion that Applicant's invention is obvious in light of Miyamoto. Applicant's composition is produced from a process, as claimed in claim 1, that includes additional steps that were neither disclosed nor suggested in Miyamoto for the purpose of producing a consumable nutritional mineral supplement composition. Because Applicant's composition is not obvious in light of Miyamoto, it would not be obvious to process the composition into a solution form. Therefore, Applicant believes that claim 13 is in condition for allowance as it is not obvious in light of Miyamoto.

(N) As per claim 14, Applicant respectfully disagrees with the Examiner's conclusion that Applicant's invention is obvious in light of Miyamoto. Applicant's composition is produced from a process, as claimed in claim 1, that includes additional steps that were neither disclosed nor suggested in Miyamoto for the purpose of producing a consumable nutritional mineral supplement composition. Also, there is no teaching or suggestion in Miyamoto that indicates that salts of plant ash minerals are compatible with the additives mentioned in claim 13. Further, because Applicant's composition is not obvious in light of Miyamoto, it would not be obvious to mix the solution form of the composition with natural or artificial sweeteners, fragrances, food colorings, and/or preservatives. Therefore, Applicant believes that claim 14 is in condition for allowance as it is not obvious in light of Miyamoto.

(O) As per claim 15, Applicant respectfully disagrees with the Examiner's conclusion that Applicant's invention is obvious in light of Miyamoto. The addition of D<sub>3</sub> would not be considered new if the composition involved were a conventional calcium supplement. However, plant ash contains strontium and other elements that improve calcium absorption and the incorporation of calcium into bone. Thus, it would not have been obvious to add D<sub>3</sub> to the composition as claimed by Applicant.

Further, Applicant's composition is produced from a process, as claimed in claim 1, that includes additional steps that were neither disclosed nor suggested in Miyamoto for the purpose of producing a consumable nutritional mineral supplement composition. Because Applicant's composition is not obvious in light of Miyamoto, it would not be obvious to fortify the solution form of the composition with vitamin D<sub>3</sub>. Therefore, Applicant believes that claim 15 is in condition for allowance as it is not obvious in light of Miyamoto.

(P) As per claim 16, Applicant respectfully disagrees with the Examiner's conclusion that Applicant's invention is obvious in light of Miyamoto. Applicant's composition is produced from a process, as claimed in claim 1, that includes additional steps that were neither disclosed nor suggested in Miyamoto for the purpose of producing a consumable nutritional mineral supplement composition. Because Applicant's composition is not obvious in light of Miyamoto, it would not be obvious to process the composition into a suspension form. Additionally, Miyamoto disclosed the use of suspensions or solutions of plant ash minerals for use in the prevention of the wilting of fruits and vegetables, not for use as nutritional mineral supplements for humans and animals. Therefore, Applicant believes that claim 16 is in condition for allowance as it is not obvious in light of Miyamoto.

(Q) As per claim 17, Applicant respectfully disagrees with the Examiner's conclusion that Applicant's invention is obvious in light of Miyamoto. Applicant's composition is produced from a process, as claimed in claim 1, that includes additional steps that were neither disclosed nor suggested in Miyamoto for the purpose of producing a consumable nutritional

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mineral supplement composition. Because Applicant's composition is not obvious in light of Miyamoto, it would not be obvious to process the composition into a suspension form. Additionally, Miyamoto disclosed the use of suspensions or solutions of plant ash minerals for use in the prevention of the wilting of fruits and vegetables, not for use as nutritional mineral supplements for humans and animals. Therefore, Applicant believes that claim 17 is in condition for allowance as it is not obvious in light of Miyamoto.

(R) As per claim 18, Applicant respectfully disagrees with the Examiner's conclusion that Applicant's invention is obvious in light of Miyamoto. Applicant's composition is produced from a process, as claimed in claim 1, that includes additional steps that were neither disclosed nor suggested in Miyamoto for producing a consumable nutritional mineral supplement composition. Because Applicant's composition is not obvious in light of Miyamoto, it would not be obvious to process the composition into a colloidal suspension. Therefore, Applicant believes that claim 18 is in condition for allowance as it is not obvious in light of Miyamoto.

(S) As per claim 19, claim 19 was objected to as being dependent upon a rejected base claim, namely claims 1, 16, and 17. Applicant now believes that claims 1, 16, and 17 are in condition for allowance based on the amendments to and arguments in support thereof. Thus, Applicant now believes that claim 19 is also in condition for allowance.

(T) As per claim 20, claim 20 was objected to as being dependent upon a rejected base claim, namely claims 1, 16, 17, and 19. Applicant now believes that claims 1, 16, 17, and 19 are in condition for allowance based on the amendments to and arguments in support thereof. Thus, Applicant now believes that claim 19 is also in condition for allowance.

## CONCLUSION

All of the objections and rejections raised by the Examiner have been addressed by Applicant. Attorney for Applicant has carefully reviewed the cited reference, namely the Miyamoto patent, and believes that the new claims presently on file in the subject application are

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patentably distinguishable with respect to the prior art. In view of the amendments to the disclosure and the remarks submitted herein, Applicant submits that all of the new claims of record are in condition for allowance and respectfully requests that a Notice of Allowance be issued in this case in due course.

If it is felt for any reason that direct communication with Applicant's attorney would serve to advance prosecution of this application to allowance, the Examiner is invited to contact the undersigned, attorney of record in this case, Richard D. Clarke, Esq., at one of the listed below numbers or at his below listed e-mail address.

Dated: November 10, 2005

Respectfully Submitted,

LAW OFFICE OF RICHARD D. CLARKE

By \_\_\_\_\_



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